

### Remarks

The application includes claims 1-30 prior to entering this amendment.

The examiner rejects claims 1, 5, 6, 8, 9, 11, 15, 16, 18, 19, 21, 25, 26, 28, and 29 under 35 U.S.C. § 103(a) as being unpatentable over Omi et al. (U.S. Patent No. 6,850,489) in view of Ho et al. (U.S. Patent No. 7,039,032).

The examiner rejects claims 2, 7, 10, 12, 17, 20, 22, 27, and 30 under 35 U.S.C. § 103(a) as being unpatentable over Omi in view of Ho and Kamel et al. (U.S. Patent No. 6,374,103).

The examiner rejects claims 3, 4, 13, 14, 23, and 24 under 35 U.S.C. § 103(a) as being unpatentable over Omi in view of Ho, Kamel, and Cohen (U.S. Patent No. 6,332,153).

The applicant amends claims 1, 5, 11, 15, 21, and 25.

Claims 1-30 are pending in the application after entering this amendment.

The applicant requests reconsideration and allowance of the pending claims in light of the following remarks.

### Claim Rejections Under § 103

The examiner rejects claims 1, 5, 6, 8, 9, 11, 15, 16, 18, 19, 21, 25, 26, 28, and 29 as obvious over Omi in view of Ho. The applicant disagrees for the reasons that follow.

Omi teaches a communication system CS that includes a plurality of communication stations 1 (c.g., 1a, 1b, 1c), each of which are communicably connected through a wireless transmission path 2 (Figure 1 and column 5, lines 53-59). Any communication station 1 that transmits data is referred to as a transmitting station 1T, and any other communication station 1 that receives the data is referred to as a receiving station 1R (column 5, line 65 to column 6, line 3). A transmitting station 1T transmits data during a communication phase, which follows a reservation phase (column 7, lines 59-60). During the data communication phase, the receiving station 1R assembles *a communication reservation packet 103* to inform each transmitting station 1T of the bandwidth that is reserved for that transmitting station (column 7, lines 60-62 and column 8, lines 31-36). Each of the communication reservation packets 103 includes a valid period VP (Figure 4 and column 7, lines 64-67). The valid period VP is a value denoting *how long* the bandwidth reserved for the targeted transmitting station 1T is valid. Each time a communication reservation packet 103 is sent to a targeted transmitting station 1T, the valid

period VP for the targeted transmitting station is *lengthened or shortened* depending on whether a data packet 104 is received from the targeted transmitting station 1T in response to the communication reservation packet 103 (column 9, lines 7-30).

Claim 1 recites *where the rescheduling frame is transmitted only if the data exchange with the first peripheral device is completed before the designated end time, and not transmitted at other times*. Similarly, claim 5 recites *where the rescheduling frame is received only if the data exchange between the first device and the second device is completed before the end time of the first time window, and not received at other times*. Claims 11, 15, 21, and 28 include similar limitations. The examiner appears to allege that Omi's communication reservation packet 103 discloses the recited *rescheduling frame*. However, Omi teaches that each transmitting station 1T receives the communication reservation packet 103 before transmitting data packets, *irrespective of whether a transmission time window (or value period VP) for data exchange between a first device and a second device is lengthened or shortened*. Put differently, Omi's communication reservation packet 103 is received by a transmitting station *at all times whenever the transmitting station is to send data packets to the receiving station*. This is in contrast with limitations recited in amended claims 1, 5, 11, 15, 21, and 28 that indicate that a *rescheduling frame is received only if the data exchange between the first device and the second device is completed before the end time of the first time window, and not received at other times*.

Additionally, the examiner agrees that Omi fails to explicitly disclose "wirelessly receiving a multi-poll scheduling frame and decoding from the multi-poll scheduling frame a schedule for wireless communication" (office action, page 3, lines 13-15). The examiner alleges that Ho teaches these limitations and concludes that it would have been obvious to combine these references.

Omi teaches transmitting a transmission schedule for a particular transmitting station in the form of communication reservation packet 103 prior to receiving data packet 104 from that transmitting station, where the communication reservation packet 103 includes the value period VP (i.e., a time window) reserved for the targeted transmitting station. In other words, Omi's system transmits separate communication reservation packet 103 for separate transmission stations, just before receiving data packet 104 from that transmitting station. In contrast, Ho teaches transmitting a multi-poll scheduling frame that is intended for all the transmitting stations. In Ho, the multi-poll scheduling frame contains the transmission schedule for all the

transmitting stations. Unlike Omi, Ho's multi-poll scheduling frame is transmitted at the beginning and is not transmitted before receiving data packets from individual transmitting stations.

Thus, Omi and Ho have two entirely different methods of transmitting transmission schedules (or a time window for data exchange between the receiving and transmitting stations). Omi's communication reservation packet 103 and Ho's multi-poll scheduling frame have similar functionality. Combining Ho and Omi would result in two different and *complete* methods in a single system to achieve the same functionality. Put differently, there is no reason for a person skilled in the art to seek to combine Omi with Ho, since no advantage would be obtained by combining them to form a combined system having two different and complete transmission schedules to achieve the same functionality. Even if a person skilled in the art were to replace Omi's communication reservation packet 103 with Ho's multi-poll scheduling frame, the resultant system would not disclose the recited rescheduling frame as we discuss in more detail above.

At least for these reasons, independent claims 1, 5, 11, 15, 21, and 28 and their corresponding dependent claims 2-4, 6-10, 12-14, 16-20, and 22-24 are in condition for the examiner's allowance.

The examiner rejects claims 2, 7, 10, 12, 17, 20, 22, 27, and 30 as obvious over Omi in view of Ho and Kamel. The applicant disagrees for the reasons that follow.

Regarding claim 2, the examiner acknowledges that Omi and Ho fail to teach that the rescheduling frame is a null frame. The examiner alleges that Kamel's time slots filled with null messages for mobile devices disclose the recited null frame. The examiner concludes that it would have been obvious to combine teachings of Omi and Ho with Kamel for permitting a null frame in the time slot of the rescheduling process of the transmission to the mobile device for selectively or dynamically filling the frame with a timing value.

There is no motivation or suggestion in Omi to replace the *communication reservation packet 103* (which, the examiner alleges, discloses the recited *rescheduling frame*) with Kamel's *null frame*. This is because Omi's *communication reservation packet 103* that it transmits to its transmitting stations 1T, include information essential in to its operation, e.g., packet type T, unique word UW, frame check sequence FCS, valid period VP, and the like (Figure 4c and column 7, lines 62-67). Even if a person of reasonable skill in the art were inclined to modify

Omi and replace the communication reservation packet 103 by Kamel's *null frame*, the resultant system would not produce an operable system since the essential information in the packet 103 would be missing. Put differently, the null frame does not transmit the essential information (packet type T, unique word UW, frame check sequence FCS, valid period VP, and the like) to the transmitting stations, thus making the system inoperable.

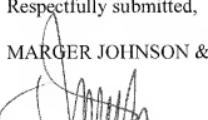
Claims 2, 7, 10, 12, 17, 20, 22, 27, and 30 are in condition for the examiner's allowance. Claims 3, 4, 13, 14, 23, and 24 are likewise in condition for the examiner's allowance since their base claims are in condition for the allowance as the applicant details above.

### **Conclusion**

The applicants request reconsideration and allowance of all remaining claims. The applicants encourage the examiner to telephone the undersigned at (503) 222-3613 if it appears that an interview would be helpful in advancing the case.

Respectfully submitted,

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